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DATE: Thursday, December 08, 2005

Hide?	Set Name	Query	Hit Count
		DB=PGPB; PLUR=YES; OP=OR	
☐	L4	(block copolymer near1 monovinylarene near1 conjugated diene and random near1 conjugated diene near1 monovinylarene and conjugated diene near1 block).clm.	49680
☐	L3	(block copolymer near1 monovinylarene near1 conjugated diene and random near1 conjuated diene near1 monovinylarene and conjugated diene near1 block).clm.	49680
		DB=PGPB,USPT; PLUR=YES; OP=OR	
☐	L2	(525/271)![CCLS]	329
☐	L1	(525/314)![CCLS]	798

END OF SEARCH HISTORY

10/705,704

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FULL ESTIMATED COST | 0.21 | 0.21

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FILE COVERS 1907 - 8 Dec 2005 VOL 143 ISS 24
FILE LAST UPDATED: 7 Dec 2005 (20051207/ED)

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=> e stacy nathan/au
E1 1 STACY N/AU
E2 2 STACY N J S/AU
E3 3 --> STACY NATHAN/AU
E4 16 STACY NATHAN E/AU
E5 2 STACY NATHAN EDWARD/AU
E6 1 STACY NICHOLAS A/AU
E7 1 STACY PATRICIA A/AU
E8 3 STACY PETER M/AU
E9 1 STACY PHILIP/AU
E10 4 STACY PHIPPS SANDRINA/AU
E11 1 STACY R A P/AU
E12 1 STACY R A PRENTICE/AU

=> s e3 and e4 and e5
3 "STACY NATHAN"/AU
16 "STACY NATHAN E"/AU
2 "STACY NATHAN EDWARD"/AU
L1 0 "STACY NATHAN"/AU AND "STACY NATHAN E"/AU AND "STACY NATHAN EDWARD"/AU

=> s e3
L2 3 "STACY NATHAN"/AU

=> d l2 1-3 ibib abs

L2 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1989:556163 CAPLUS
DOCUMENT NUMBER: 111:156163
TITLE: Engineering lignopolystyrene materials of controlled structures
AUTHOR(S): Narayan, Ramani; **Stacy, Nathan**; Ratcliff,

Matt; Chum, Helena Li
CORPORATE SOURCE: Lab. Renewable Resour. Eng., Purdue Univ., West Lafayette, IN, 47907, USA
SOURCE: ACS Symposium Series (1989), 397(Lignin), 476-85
CODEN: ACSMC8; ISSN: 0097-6156
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Monodisperse polystyrene of defined mol. weight was grafted onto a well characterized mesylated lignin of known mol. weight and relatively narrow polydispersity by the nucleophilic displacement of mesylate groups on lignin by the polystyryl carbanion. Preparation of polystyryl carbanion by anionic polymerization allows monodisperse polystyrene of any desired mol. weight to be grafted onto the lignin in a reproducible and consistent manner. By using well characterized, low-mol.-weight lignins of narrow polydispersity, tailor-made lignin-polystyrene graft copolymers can be prepared These engineered lignin graft copolymers of controlled structures can function as compatibilizers/interfacial agents in preparing blends of kraft lignins with polystyrene, leading to new materials.

L2 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1989:409080 CAPLUS
DOCUMENT NUMBER: 111:9080
TITLE: Engineering of controlled cellulose/starch graft copolymer structures
AUTHOR(S): Narayan, Ramani; **Stacy, Nathan**; Lu, Zhong Ling
CORPORATE SOURCE: Lab. Renewable Resourc. Eng., Purdue Univ., West Lafayette, IN, 47907, USA
SOURCE: Polymer Preprints (American Chemical Society, Division of Polymer Chemistry) (1989), 30(1), 105-6
CODEN: ACPPAY; ISSN: 0032-3934
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Natural polymers with synthetic polymer branches were prepared by grafting onto a natural polymer backbone, e.g. cellulose and starch, a preformed synthetic polymer chain. The process involved: (1) preparation of monodisperse, predefined-mol.-weight synthetic polymer anions by anionic polymerization, e.g. polystyryl carboxylate anion; (2) functionalization of the natural polymer backbone by introduction of sulfonic ester groups (mesylate or tosylate) on an acetylated cellulose/starch backbone to give an organic solvent-soluble product and to impart thermal plasticity to the final graft copolymer product; and (3) coupling of the synthetic anion with the cellulose/starch acetate sulfonic ester. The reaction of mesylated starch acetate with polystyrenecarboxylate anion gave a starch-polystyrene graft copolymer product that was 48% polystyrene, as determined by UV absorbance.

L2 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1989:9994 CAPLUS
DOCUMENT NUMBER: 110:9994
TITLE: Synthesis of controlled starch-synthetic polymer graft copolymer structures
AUTHOR(S): Narayan, Ramani; Lu, Zhong Jing; Chen, Zhong Xiao; **Stacy, Nathan**
CORPORATE SOURCE: Lab. Renewable Resour. Eng., Purdue Univ., West Lafayette, IN, 47907, USA
SOURCE: Polymer Preprints (American Chemical Society, Division of Polymer Chemistry) (1988), 29(2), 106-7
CODEN: ACPPAY; ISSN: 0032-3934
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Biodegradable butadiene-starch acetate and starch acetate-styrene graft

copolymers of tailored properties were obtained by coupling mesylated starch acetate with carboxy-diterminated polybutadiene and carboxy-monoterminated polystyrene, resp.

=> s e5
L3 2 "STACY NATHAN EDWARD"/AU

=> d l3 1-2 ibib abs

L3 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1997:293788 CAPLUS
DOCUMENT NUMBER: 126:264481
TITLE: Conjugated diene/monovinylarene block copolymers and their manufacture for transparent blends
INVENTOR(S): Deporter, Craig Donald; **Stacy, Nathan Edward**; Moczygemba, George Anthony
PATENT ASSIGNEE(S): Phillips Petroleum Co., USA; Conocophillips Co.
SOURCE: Eur. Pat. Appl., 10 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 761704	A1	19970312	EP 1996-113746	19960828
EP 761704	B1	20000105		
EP 761704	B2	20040519		
R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, NL				
US 6096828	A	20000801	US 1995-521335	19950829
SG 84495	A1	20011120	SG 1996-10483	19960819
CA 2183916	AA	19970301	CA 1996-2183916	19960822
CA 2183916	C	20010814		
CN 1148052	A	19970423	CN 1996-111526	19960822
CN 1073125	B	20011017		
AT 188493	E	20000115	AT 1996-113746	19960828
ES 2140770	T3	20000301	ES 1996-113746	19960828
JP 09169825	A2	19970630	JP 1996-228756	19960829
JP 3662359	B2	20050622		
TW 378215	B	20000101	TW 1996-85112652	19961016

PRIORITY APPLN. INFO.: US 1995-521335 A 19950829
AB A block copolymer comprises ≥3 consecutive conjugated diene/monovinylarene tapered blocks. The block copolymer and polymer blends exhibit excellent optical and mech. properties. A 50/50 blend of butadiene-styrene tapered block copolymer and polystyrene showed haze 2.86% and blueness -10.4.

L3 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1989:505557 CAPLUS
DOCUMENT NUMBER: 111:105557
TITLE: Photochemical and photophysical studies of aryl isocyanide complexes of rhenium(I) and ruthenium(II)
AUTHOR(S): **Stacy, Nathan Edward**
CORPORATE SOURCE: Purdue Univ., West Lafayette, IN, USA
SOURCE: (1988) 240 pp. Avail.: Univ. Microfilms Int., Order No. DA8825581
From: Diss. Abstr. Int. B 1989, 49(9), 3755
DOCUMENT TYPE: Dissertation
LANGUAGE: English
AB Unavailable

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=> s e4
L4          16 "STACY NATHAN E"/AU

=> s l4 and block copolymer?
         221401 BLOCK
          85785 BLOCKS
         283176 BLOCK
                (BLOCK OR BLOCKS)
         635347 COPOLYMER?
          44368 COPOLYMN
           2275 COPOLYMNS
          45223 COPOLYMN
                (COPOLYMN OR COPOLYMNS)
          15302 COPOLYMD
              1 COPOLYMDS
          15303 COPOLYMD
                (COPOLYMD OR COPOLYMDS)
           4928 COPOLYMG
         648261 COPOLYMER?
                (COPOLYMER? OR COPOLYMN OR COPOLYMD OR COPOLYMG)
          61170 BLOCK COPOLYMER?
                (BLOCK(W)COPOLYMER?)
L5          12 L4 AND BLOCK COPOLYMER?

=> d l5 1-12 ibib abs

L5   ANSWER 1 OF 12  CAPLUS  COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER:         2005:409260  CAPLUS
DOCUMENT NUMBER:          142:430713
TITLE:                    Monovinylarene/conjugated diene copolymers having
                          lower glass transition temperatures
INVENTOR(S):              Stacy, Nathan E.; Nash, Larry L.; Hottovy,
                          John D.
PATENT ASSIGNEE(S):       USA
SOURCE:                   U.S. Pat. Appl. Publ., 11 pp.
                          CODEN: USXXCO
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

     PATENT NO.           KIND   DATE        APPLICATION NO.          DATE
     ---------------      ----   --------    --------------------     --------
     US 2005101743         A1    20050512    US 2003-705704           20031110
     WO 2005047355         A2    20050526    WO 2004-US37279          20041105
     WO 2005047355         A3    20050909
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
             CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
             GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
             LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,
             NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,
             TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
         RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
             AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
             EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO,
             SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR,
             NE, SN, TD, TG
PRIORITY APPLN. INFO.:                        US 2003-705704      A  20031110
AB   Disclose is a monovinylarene/conjugated diene block
     copolymer, comprising: (A) a random (conjugated
     dienex/monovinylareney)m block, wherein x = 2.5-10%, y = 90-97.5%, and x +
     y = 97.5-100%; and (B) a (conjugated diene)n block; wherein n = 20-30%, m
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= 70-80%, and m + n = 90-100%. We also disclose a method of forming the **block copolymer** and a method for fabricating an article from the **block copolymer**. The **block copolymer** typically exhibits a Tg ≥10° less than the Tg of a reference polymer differing only in that x is about 0% and y is about 100%.

L5 ANSWER 2 OF 12 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2004:490291 CAPLUS
DOCUMENT NUMBER: 141:39491
TITLE: Manufacturing articles with materials containing tapered polymers and tubing
INVENTOR(S): Harris, Justin L.; Kennedy, Shawn R.; Kuang, Jianxin J.; Hanes, Mark; Potter, William W.; **Stacy, Nathan E.**; Carvell, Lee A.; Rigdon, Timothy E.; Nash, Larry L.
PATENT ASSIGNEE(S): Chevron Phillips Chemical Company, LP, USA
SOURCE: U.S. Pat. Appl. Publ., 9 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004115381	A1	20040617	US 2002-317491	20021212
WO 2004055108	A2	20040701	WO 2003-US37288	20031120
WO 2004055108	A3	20050414		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2002-317491 A 20021212
AB Articles without plasticizers, have improved clarity, kink resistance, flexibility, melt fracture and die lines. Manufacturing may be conducted with materials comprising polymodal tapered polymers prepared from copolymg. ≥1 monovinyl aromatic monomer and ≥1 conjugated diene monomer followed by coupling with ≥1 coupling agent.

L5 ANSWER 3 OF 12 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2004:360275 CAPLUS
DOCUMENT NUMBER: 140:360037
TITLE: Reducing fluid loss in a drilling fluid
INVENTOR(S): Stewart, Wayne S.; **Stacy, Nathan E.**; Fox, Kelly B.; Patel, Bharat B.; Ledbetter, Sam B.; Evans, Alvin
PATENT ASSIGNEE(S): Chevron Phillips Chemical Company, Lp, USA
SOURCE: U.S., 6 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

US 6730637 B1 20040504 US 2002-310984 20021206
WO 2004053017 A1 20040624 WO 2003-US38646 20031205
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
PRIORITY APPLN. INFO.: US 2002-310984 A 20021206
AB The fluid loss characteristics of a low toxicity drilling mud oil as used in a borehole can be reduced to <0.2 mL/30 min by adding .apprx.0.05% to .apprx.2.0% by weight of a butadiene-styrene-butadiene (BSB) **block copolymer** having .apprx.20% by weight or more styrene.
REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 4 OF 12 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2003:5509 CAPLUS
DOCUMENT NUMBER: 138:40535
TITLE: Conjugated diene/monovinylarene **block copolymers** blends
INVENTOR(S): Swisher, Gregory M.; Rhodes, Vergil H.; Deporter, Craig D.; **Stacy, Nathan E.**; Moczygemba, George A.
PATENT ASSIGNEE(S): Chevron Phillips Chemical Company LP, USA
SOURCE: U.S. Pat. Appl. Publ., 9 pp., Cont.-in-part of U. S. 6,444,755.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003004267	A1	20030102	US 2002-151443	20020520
US 6835778	B2	20041228		
US 6096828	A	20000801	US 1995-521335	19950829
US 6420486	B1	20020716	US 2000-576408	20000522
US 6444755	B1	20020903	US 2000-576879	20000522
CA 2486190	AA	20031204	CA 2003-2486190	20030519
WO 2003099925	A1	20031204	WO 2003-US15654	20030519
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
BR 2003011162	A	20050315	BR 2003-11162	20030519
EP 1513896	A1	20050316	EP 2003-755376	20030519
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2005529992	T2	20051006	JP 2004-508172	20030519
US 2004059057	A1	20040325	US 2003-635662	20030806

PRIORITY APPLN. INFO.: US 1995-521335 A3 19950829

US 2000-576408	A3	20000522
US 2000-576879	A2	20000522
US 2002-151443	A	20020520
WO 2003-US15654	W	20030519

AB This invention relates to polymer blends, which comprise at least one tapered conjugated diene-monovinylarene **block copolymer** and at least one styrenic polymer. The polymer blends possess good optical and mech. properties.

L5 ANSWER 5 OF 12 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1995:855979 CAPLUS
DOCUMENT NUMBER: 123:230092
TITLE: Tapered **block copolymers** of monovinylarenes and conjugated dienes
INVENTOR(S): Trepka, William J.; **Stacy, Nathan E.**; Moczygemba, George A.; Farrar, Ralph C., Jr.
PATENT ASSIGNEE(S): Phillips Petroleum Co., USA
SOURCE: Eur. Pat. Appl., 32 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 654488	A1	19950524	EP 1994-117957	19941114
EP 654488	B1	19990113		
EP 654488	B2	20030319		
R: AT, BE, CH, DE, ES, FR, GB, IT, LI, NL				
CA 2134026	AA	19950516	CA 1994-2134026	19941021
CA 2134026	C	19980609		
JP 07252335	A2	19951003	JP 1994-315460	19941114
JP 3529868	B2	20040524		
EP 877038	A2	19981111	EP 1998-111995	19941114
EP 877038	A3	19990526		
R: AT, BE, CH, DE, ES, FR, GB, IT, LI, NL				
AT 175686	E	19990115	AT 1994-117957	19941114
ES 2126045	T3	19990316	ES 1994-117957	19941114
SG 73397	A1	20000620	SG 1996-5986	19941114
SG 96577	A1	20030616	SG 2000-200006018	19941114
US 5545690	A	19960813	US 1995-478306	19950607
US 5910546	A	19990608	US 1997-963964	19971104
US 6265484	B1	20010724	US 1997-966458	19971107
US 6265485	B1	20010724	US 1997-968001	19971112

PRIORITY APPLN. INFO.:

US 1993-153408	A	19931115
EP 1994-117957	A3	19941114
US 1995-478306	A3	19950607
US 1996-605659	B1	19960222
US 1996-646793	B1	19960521
US 1996-651135	B1	19960521

AB Title tapered **block copolymers**, which are particularly useful for blend components in blends with styrene polymers, are prepared by sequentially charging (1) an initiator and monovinylarom. monomers in the presence of a randomizer (e.g. THF), (2) an initiator and monovinylarom. monomers, (3) a mixture of monovinylarom. and conjugated diene monomers, and (4) a coupling agent. The blends of title polymers and styrene polymers are particularly useful for packagings and food or drink containers which require transparency, low blueness, colorlessness, good impact strength and ductility. A 50:50 blend of Novacore 555 and a butadiene-styrene **block copolymer** (prepared as described above) was molded to form a product with haze 12.3%, Hunter blueness -15.5, Notched Izod impact strength 14.5 J/m, and elongation at break 17.7%.

L5 ANSWER 6 OF 12 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1995:780290 CAPLUS
DOCUMENT NUMBER: 123:171347
TITLE: **Block copolymers** of monovinylarenes and conjugated dienes and preparation thereof
INVENTOR(S): Trepka, William J.; Moczygemba, George A.; Nash, Larry L.; DePorter, Craig D.; **Stacy, Nathan E.**; Farrar, Ralph C.; Selman, Charles M.
PATENT ASSIGNEE(S): Himont Inc., USA
SOURCE: Eur. Pat. Appl., 48 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 646607	A2	19950405	EP 1994-115370	19940929
EP 646607	A3	19980527		
EP 646607	B1	20030528		
R: AT, BE, DE, ES, FR, GB, IT, NL				
CA 2117708	AA	19950331	CA 1994-2117708	19940920
CA 2117708	C	20021022		
AT 241655	E	20030615	AT 1994-115370	19940929
ES 2201066	T3	20040316	ES 1994-115370	19940929
JP 07173232	A2	19950711	JP 1994-237785	19940930
JP 3489597	B2	20040119		
PRIORITY APPLN. INFO.:			US 1993-130039 A	19930930
			US 1994-248116 A	19940524

AB Polymodal **block copolymers** are prepared by a method which comprises sequentially contacting under polymerization conditions: (a) a monovinylarene monomer such as styrene and an initiator; (b) an initiator and a monovinylarene monomer; (c) a sequence of ≥2 charges selected from the group consisting of (i) an initiator and a monovinylarene monomer, (ii) a mixture of a monovinylarene monomer and conjugated diene monomer such as butadiene, (iii) a conjugated diene monomer, (i.v.) a monovinylarene monomer; (d) a coupling agent; wherein the sequence of ≥2 charges in step (c) can be made in any order.

L5 ANSWER 7 OF 12 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1995:773011 CAPLUS
DOCUMENT NUMBER: 123:288232
TITLE: **Block copolymers** of monovinylaromatic monomers and conjugated dienes
INVENTOR(S): Deporter, Craig D.; Farrar, Ralph C., Jr.; **Stacy, Nathan E.**; Moczygemba, George A.
PATENT ASSIGNEE(S): Phillips Petroleum Co., USA
SOURCE: U.S., 17 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5438103	A	19950801	US 1994-216725	19940323
CA 2143598	AA	19950924	CA 1995-2143598	19950228
CA 2143598	C	20000111		
EP 673953	A1	19950927	EP 1995-104209	19950322

EP 673953	B1	19990127			
R: AT, BE, DE, ES, FR, GB, IT, LU, NL					
AT 176251	E	19990215	AT 1995-104209		19950322
ES 2127957	T3	19990501	ES 1995-104209		19950322
JP 08143636	A2	19960604	JP 1995-102938		19950323
TW 382633	B	20000221	TW 1995-84103751		19950417
PRIORITY APPLN. INFO.:			US 1994-216725	A	19940323

AB Title copolymers, which can be made or molded into transparent articles (e.g., packaging materials, containers, cups, lids, toys, and display devices) having high blueness and toughness without impairing other phys. properties, are prepared in the presence of randomizers by sequentially contacting a monovinylarom. monomer and an initiator, thereafter an initiator and a monovinylarom. monomer, thereafter a conjugated diene, thereafter an initiator and a mixture of monovinylarom. monomer/conjugated diene, thereafter a conjugated diene, thereafter a coupling agent with ≤3 initiator charges. A resinous polymodal, coupled, tapered block butadiene-styrene copolymer was prepared as described above with BuLi, THF, and Vikoflex 7170 as the initiator, randomizer, and coupler, resp. and was injection molded to form a high blue molding.

L5 ANSWER 8 OF 12 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1995:761980 CAPLUS
DOCUMENT NUMBER: 123:288229
TITLE: **Block copolymers** of monovinylarenes and conjugated dienes and their preparation
INVENTOR(S): Moczygemba, George A.; Nash, Larry L.; Trepka, William J.; Deporter, Craig D.; **Stacy, Nathan E.**; Farrar, Ralph C.; Selman, Charles M.
PATENT ASSIGNEE(S): Phillips Petroleum Co., USA
SOURCE: U.S., 18 pp. Cont.-in-part of U.S. Ser. No. 130,039, abandoned.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
US 5436298	A	19950725	US 1994-308240		19940919
IN 181350	A	19980523	IN 1994-CA937		19941110
US 5705569	A	19980106	US 1996-651082		19960522
PRIORITY APPLN. INFO.:			US 1993-130039	B2	19930930
			US 1994-308240	A3	19940919
			US 1995-424020	B1	19950418

AB Title resinous polymodal block polymers are prepared by contacting monovinylarene. monomers (A; containing C8-18 ones), initiators, and conjugated dienes (B; containing C4-12 ones) and coupling with polyfunctional couplers with ≥3 initiator charges, ≥1 B charge, and ≥3 A charges which are proceeded before the first B charge. A butadiene-styrene **block copolymer** was prepared as described above and molded into a molding with good balance of toughness and flexibility.

L5 ANSWER 9 OF 12 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1995:758676 CAPLUS
DOCUMENT NUMBER: 123:144939
TITLE: **Block copolymers** of monovinylarenes and conjugated dienes containing two interior tapered blocks
INVENTOR(S): Moczygemba, George A.; Knight, Nancy R.; Trepka, William J.; **Stacy, Nathan E.**

PATENT ASSIGNEE(S): Phillips Petroleum Co., USA
SOURCE: U.S., 13 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5399628	A	19950321	US 1993-162735	19931202
CA 2134027	AA	19950603	CA 1994-2134027	19941021
CA 2134027	C	19981013		
NO 9404630	A	19950606	NO 1994-4630	19941201
EP 656377	A1	19950607	EP 1994-118996	19941201
EP 656377	B1	19981014		
R: AT, BE, CH, DE, ES, FR, GB, IT, LI, NL, SE				
JP 07252336	A2	19951003	JP 1994-332329	19941201
JP 2927692	B2	19990728		
AT 172211	E	19981015	AT 1994-118996	19941201
ES 2122135	T3	19981216	ES 1994-118996	19941201
KR 235553	B1	19991215	KR 1994-32740	19941201
SG 73387	A1	20000620	SG 1996-4817	19941201
IN 182265	A	19990227	IN 1994-CA1005	19941202
US 5587425	A	19961224	US 1995-580227	19951228

PRIORITY APPLN. INFO.: US 1993-162735 A 19931202
US 1995-371256 B1 19950111

AB Preparing tapered **block copolymers** comprises sequentially charging to a vessel (1) an initiator and monovinylarom. monomer in the presence of a randomizer; (2) an initiator and monovinylarom. monomer; (3) a mixture of monovinylarom. and conjugated diene monomers; (4) a mixture of monovinylarom. and conjugated diene monomers; (5) conjugated diene monomer; and (6) a coupling agent. The copolymers are particularly useful neat or in blends for applications such as packaging and food or drink containers which require transparency and good environmental stress crack resistance. Tapered block styrene/butadiene copolymers were prepared having melt flow 7.1 g/10 min and puncture resistance (accelerated puncture test; min to failure) curl up (inside part of roll) 178 min and curl down (outside part of roll) 190 min; vs. 6 and 8.2, resp., for **block copolymer** without tapered blocks.

L5 ANSWER 10 OF 12 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1995:662951 CAPLUS
DOCUMENT NUMBER: 123:200752
TITLE: Method for stabilizing monovinylarene-conjugated diene copolymers and a method for preparing a stabilizing mixture
INVENTOR(S): Trepka, William J.; Nash, Larry L.; Bohannan, John R.; **Stacy, Nathan E.**; Moczygemba, George A.; Deporter, Craig D.; Reyes, Luis E.; Olson, Tad L.
PATENT ASSIGNEE(S): Phillips Petroleum Co., USA
SOURCE: U.S., 6 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5422389	A	19950606	US 1994-192000	19940204

PRIORITY APPLN. INFO.: US 1994-192000 19940204
OTHER SOURCE(S): MARPAT 123:200752

AB The process comprises (1) contacting ≥1 hindered phenolic compound and an organic phosphite to form a stabilizing mixture, wherein the contacting is at a temperature sufficient to at least partially dissolve the hindered phenolic compound, wherein the stabilizing mixture is essentially free of organic solvent; and (2) contacting the stabilizing mixture and a polymeric composition comprising a monovinylarene-conjugated diene copolymer; wherein the organic phosphite and ≥1 hindered phenolic compound are present in step (2) in an effective amount sufficient to stabilize the polymeric composition Thus, butadiene-styrene **block copolymer** was stabilized by a mixture of Irganox 1010 and tris(nonylphenyl)phosphite.

L5 ANSWER 11 OF 12 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1995:383019 CAPLUS
DOCUMENT NUMBER: 122:292454
TITLE: Food-safe heat stabilizers in conjugated diene-monovinylarene **block copolymer** molding compositions
INVENTOR(S): Trepka, William J.; **Stacy, Nathan E.**; Moczygemba, George A.
PATENT ASSIGNEE(S): Phillips Petroleum Co., USA
SOURCE: U.S., 4 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5384349	A	19950124	US 1993-163966	19931206
PRIORITY APPLN. INFO.:			US 1993-163966	19931206

AB The title compns., useful, e.g., for food or beverage containers (no data), comprise 5-95% monovinylarene monomer, 95-5 butadiene, e.g., a butadiene-styrene **block copolymer**, and an effective amount of a thermal stabilizing agent selected from ascorbic acid, citric acid, di-Na citrate, and their mixts.

L5 ANSWER 12 OF 12 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1994:458764 CAPLUS
DOCUMENT NUMBER: 121:58764
TITLE: Conjugated diene/monovinyl arene **block copolymers** with multiple tapered blocks
INVENTOR(S): Moczygemba, George A.; **Stacy, Nathan E.**; Knight, Nancy R.
PATENT ASSIGNEE(S): Phillips Petroleum Co., USA
SOURCE: U.S., 12 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5290875	A	19940301	US 1992-982938	19921130
CA 2105157	AA	19940531	CA 1993-2105157	19930830
CA 2105157	C	19960917		
JP 06206953	A2	19940726	JP 1993-294810	19931125
JP 2935796	B2	19990816		
EP 600405	A1	19940608	EP 1993-119192	19931129
EP 600405	B1	19970108		

R: AT, BE, CH, DE, ES, FR, GB, IT, LI, NL, SE

AT 147412	E	19970115	AT 1993-119192	19931129
ES 2096186	T3	19970301	ES 1993-119192	19931129
US 5393838	A	19950228	US 1993-163785	19931206
PRIORITY APPLN. INFO.:			US 1992-982938 A	19921130

AB Title polymodal copolymers, useful for packaging materials having good environmental stress crack resistance, are prepared by sequentially charging (a) an initiator and monovinylarom. compds. (VA) in the presence of a randomizer (e.g., THF), (b) an initiator and VA, (c) a mixture of VA and conjugated dienes (CD), (d) a mixture of VA and CD, (e) an initiator and VA, (f) a mixture of VA and CD, (g) a mixture of VA and CD, (h) CD, and (i) a coupling agent. A tapered SBR block polymer was prepared as described above and coupled with Vikoflex 7170 (epoxidized vegetable oil) to form resinous terminal blocks.